

## A New Species of *Nepytia* from the Southern Rocky Mountains (Lepidoptera: Geometridae)

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**Abstract:** *Nepytia janetae*, new species, is described from material collected in New Mexico and eastern Arizona. The genitalia of both sexes are illustrated.

Recent collecting trips to the higher mountains of New Mexico by the author and his family produced a nice series of a heretofore undescribed species of the genus *Nepytia* Hulst. One additional specimen was found in the collection of the American Museum of Natural History, being from the White Mountains of Arizona, *ex* collection of G. H. and J. L. Sperry. These moths are now being described in order to make this name available.

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*Nepytia janetae*, new species

Figures 1, 2

This species is allied to *regulata* Barnes and McDunnough, and may be distinguished from it by its smaller size, paler color, and by the large discal spot filled with ground color on each forewing.

**MALE:** Head with vertex and front creamy white, with variable number of yellow scales; palpi slender, grayish brown; antennae with very long pectinations, up to 1.6 mm in length. Thorax pale gray above, with elongate hair-like scales, and with grayish black scaling anteriorly; beneath white. Abdomen pale gray, with a few scattered pale brown scales above.

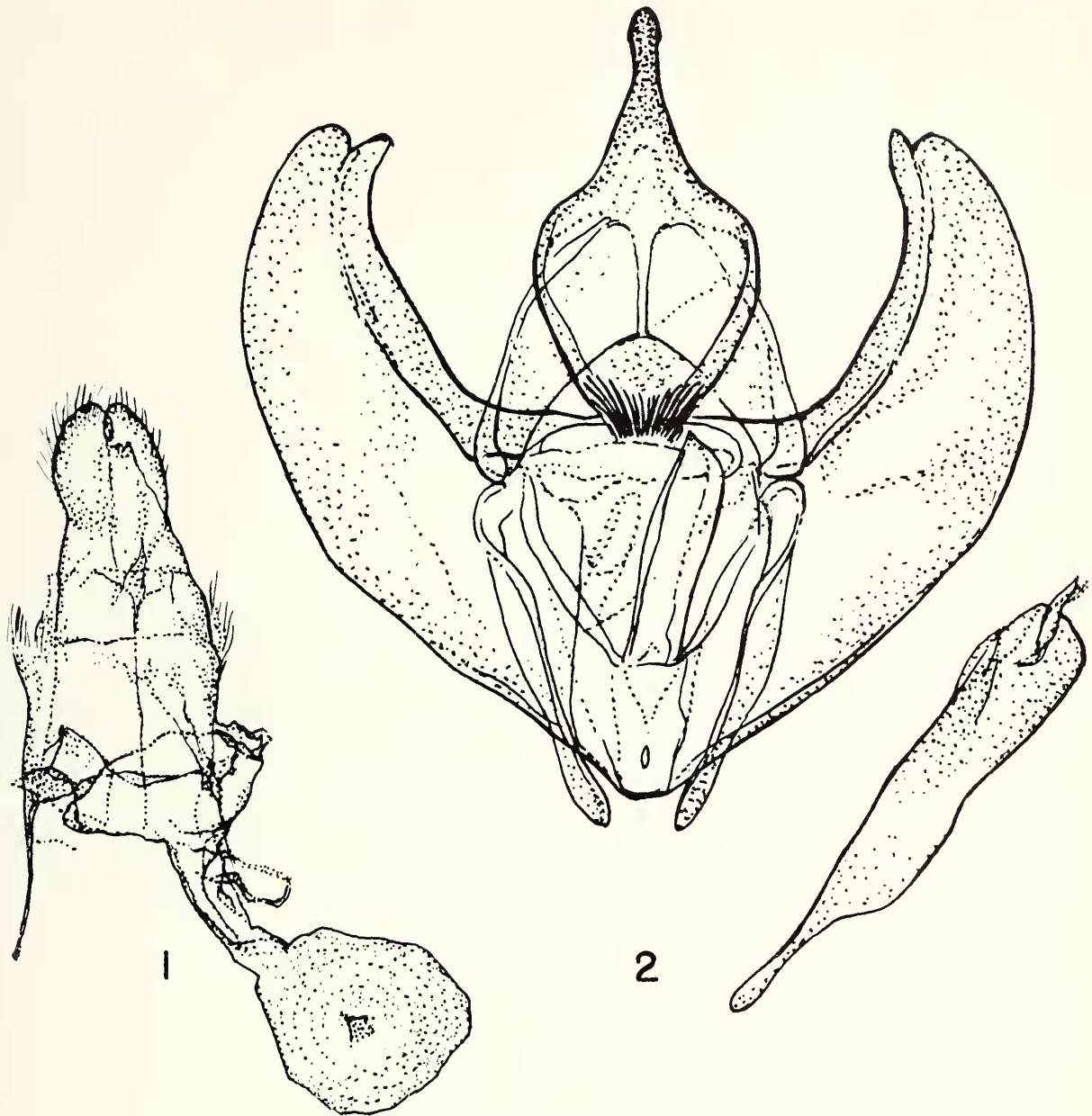
**UPPER SURFACE OF WINGS:** All wings rather thinly scaled; forewings with ground color pale gray, with scattered black and yellowish scales, the latter concentrated along upper portion of t. p. line and inner margin; t. a. and t. p. lines broad, black or grayish black, and tending to be somewhat diffuse; t. a. line arising on costa one-third of distance from base, outwardly dentate on veins and in cell, inwardly oblique from anal angle to inner margin; discal spot large, occupying most of width of cell, roughly triangular, filled with yellowish ground color; t. p. line strongly inwardly dentate on veins, connected with discal spot anteriorly along vein R<sub>5</sub>, and with broadening of t. p. line at junction of base of discal spot, in some specimens with small spot of ground color at origin of vein M<sub>3</sub>; subterminal area with nebulous yellowish band distal of t. p. line in upper portion of wing, and with weakly defined s. t. line, shaded distally by ground color; fringe concolorous with wing, with blackish gray spots at ends of veins. Hind wings white, with scattered brownish black scales; extradiscal line weakly indicated, extending straight across wing; discal dot weakly represented in some specimens; fringe like that of forewings.

**UNDER SURFACE OF WINGS:** Forewings pale grayish white, with maculation of upper surface weakly indicated; hind wings white, with faint extradiscal line.

**LENGTH OF FOREWING:** 15 to 18 mm; holotype, 17.5 mm.

**FEMALE:** Similar to male, but with maculation tending to be slightly heavier.

**LENGTH OF FOREWING:** 15 to 18 mm; allotype, 17 mm.



FIGS. 1 AND 2. Genitalia of *Nepytia janetae*, new species. FIG. 1. Female, allotype. FIG. 2. Male, paratype from type locality.

MALE GENITALIA: Gnathos with sides very slender, median spinose enlargement triangular in outline; valves with apex of costa protruding from end of valve, and with outer margin of valvula rounded; furca angled to right side, short, not attaining posterior margin of transtilla, broad, with inner margin straight and outer margin rounded; aedeagus with ventrolateral, sclerotized, posteriorly and asymmetrically bidentate area, and with slender, elongate, posterior, sclerotized process.

FEMALE GENITALIA: Sterigma very broad, posterior margin evenly rounded, and with V-shaped anterior process ventrad of posterior one-half of short ductus bursae; corpus bursae with narrow posterior neck and anteriorly rather short and globular, with stellate signum.

TYPES: Holotype, male, Bursum Camp, 18 miles east of Alma, Catron County, New Mexico, elevation 9000 feet, July 9, 1961 (F., P., and J. Rindge); genitalia mounted on slide no. F.H.R. 10,650. Allotype, female,

same data, July 15, 1961; genitalia mounted on slide no. F.H.R. 13,774. Paratypes: same data as types, various dates between July 7-16, 1961, 26 males and 21 females; Pine Camp, 2 miles northeast of Cloudcroft, Otero County, New Mexico, elevation 8000 feet, July 3-5, 1964 (F., P., and M. Rindge), five males; Bear Trap Camp, 28 miles southwest of Magdalena, Socorro County, New Mexico, elevation 8500 feet, July 1-11, 1965 (F., P., and M. Rindge), seven males and five females; Alpine, Apache County, Arizona, June 18, 1936 (G. H. and J. L. Sperry), one male.

All the type material is in the collection of the American Museum of Natural History.

REMARKS: This species flies with its close ally, *regulata*, at all of the known localities for *janetae*. The new species can be separated from *regulata* by its yellowish vertex, the much longer antennal pectinations in the male, by the paler wing color, and by the very large discal spot of each forewing being filled in with yellowish ground color.

The genitalia of the new species are similar to those of *regulata*. The males of *janetae* can be recognized by the distinctive gnathos, the apex of the costa extending above the surface of the valve, and by the straighter and broader furca. The females structures are characterized by the broader, semicircular sterigma, and by the narrower posterior portion of the corpus bursae.

This species is named for Janet, my oldest daughter, who helped collect the topotypical series.

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